

METHOD OF INSPECTING HOLES USING CHARGED-PARTICLE BEAM

ABSTRACT OF THE DISCLOSURE

5 A method of inspecting contact holes or via holes in a semiconductor device. Plural small measurement regions Q are established on the whole sample surface. The measurement regions Q are successively irradiated with an electron beam. At this time, an absorption current flowing across the sample is detected and amplified by a current amplifier. A control unit stores data about the absorption current signal derived from the small
10 regions Q in locations of a memory which are addressed corresponding to the positions of the small regions. The control unit reads data about absorption current intensity values from the memory and classifies the intensity values into four intensity ranges, for example, to which different brightness intensities are assigned.